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(71) Applicant (for all designated States except US): MYKRO-LIS CORPORATION [US/US]; 129 Concord Road, Billerica, MA 01821 (US).

(72) Inventors; and

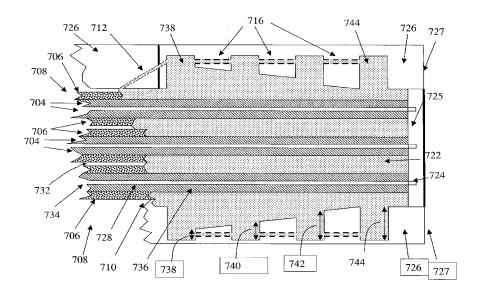
(75) Inventors/Applicants (for US only): DOH, Cha, P. [—/US]; 43 Atkinson Lane, Sudbury, MA 01776 (US).

SMITH, Joseph, E. [US/US]; 30 Penni Lane, N. Andover, MA 01845 (US).

- (74) Agent: MILLER, Raymond, A.; Pepper Hamilton LLP, One Mellon Center, 50th Floor, 500 Grant Street, Pittsburgh, PA 15219 (US).
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#### (54) Title: EXCHANGE DEVICES WITH POTTED HOLLOW CONDUITS AND METHODS OF MAKING



(57) Abstract: The present invention relates to potted exchange devices including hollow conduits and or hollow porous membranes wherein the housing includes recessed channels or grooves. The recessed channels or grooves a filled by the potting material during the potting process and form a unitary end structure with the potting material. The grooves or channels formed on the inside of the housing maintains the integrity of the potting with the housing under a wide range of mechanical and thermal conditions.

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#### **Declarations under Rule 4.17:**

as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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